Retrospective Study of Children with Developmental Disabilities Admitted to the Commonwealth Center for Children and Adolescents (CCCA)

FY 2015 (July 1, 2014 thru June 30, 2015)

Report Finalized: 11/16/16

Report Intent/Utilization Disclaimer

Analysis & Implications of Data on Systems Improvements

The data within this report is the result of a retrospective review of 181 admission records of 139 children/youth who were identified with a developmental disability (DD), including an intellectual disability, at the time of admission to the Commonwealth Center for Children and Adolescents (CCCA), a state-operated mental health hospital serving children up to their 18th birthday. The review of the files followed a standardized process by a qualified professional with extensive experience with individuals with challenging behaviors. The process was not designed or intended to be based upon more stringent protocols applied to research projects. Please note that throughout this document are noted recommendations and questions which, when addressed, may facilitate the continued development of community services for this population.

The data within this report is based upon data collected by the reviewer through the review of records on site at CCCA. Unless otherwise specified, all references to a developmental disability includes individuals with an intellectual disability. The Department of Behavioral Health and Developmental Services (DBHDS) will continue to review this data, including if needed returning to the source materials compiled during the review process. DBHDS's internal review committee created to vet and review the report and other data includes professionals from:

- Division of Developmental Services, including facilities and community operations;
- Division of Mental Health & Forensic Services, including facilities and community operations;
- Division of Quality Management and Development, including Data Warehouse and Risk Management, and;
- Representatives of REACH (child community crisis system)

The committee will review this working document and additional data from REACH, Critical Incident Reports, Regional Support Teams (RST), and other community data sources, as part of the ongoing process of developing, supporting and expanding community services. The committee meets the 2nd Thursday of the month, beginning October 13, 2016 and will most likely meet through fiscal year 2017.

Purpose

This study provides information about the number and characteristics of admissions of children with DD to CCCA during FY 2015 (July 1, 2014 thru June 30, 2015). The body of the report focuses upon summarizing data to help utilize the report for planning purposes and to frame questions which may merit additional exploration for the improvement of services. Observations and recommendations about what the data may or may not convey are included; however, readers must be cautioned that this was not a formal research study, but a detailed retrospective review focused upon individuals' contacts with the mental health and developmental disability systems and the specific factors that may have led to their admission to CCCA. The retrospective was conducted for the purpose of improving the system for children who have a developmental disability, a co-occurring mental health diagnosis, and who were admitted, primarily involuntarily, into CCCA.

This review does not presuppose that each and every individual reviewed falls within the target population as defined in the Commonwealth's settlement agreement with the United States Department of Justice. DBHDS does not at this time intend to do a repeat review in this detail of all admissions in subsequent years. References in this report to the system during FY2015, such as connectivity to the REACH Children's Crisis System or Community Services Boards, may or may not be indicative of the system of services as of September 2016 because these systems are in a period of continual development.

Methodology

The retrospective study reviewed Avatar admission/discharge data, which was verified through CCCA's Health Information Management admission/discharge data and DBHDS's Master Client Index. A chart review was completed between February 1 and April 7, 2016 for each DD admission episode that occurred in FY 2015. The Division of Developmental Services created a standard tool for the chart review to collect information from a variety of documents including:

- Name of each individual
- Gender and age
- Admission and discharge dates
- Length of stay (LOS)
- Reason for admission
- Hospital admitting diagnoses
- Hospital discharge diagnoses
- Living residence prior to admission
- Living residence at discharge
- Could the admission have been diverted
- REACH involvement

Data was analyzed and reported for CCCA.

The reviewer specifically focused the review of the files as follows: diagnosis upon admission and at discharge; if living in the community, whether the children's crisis system, REACH, had been involved if the admission could have been diverted; if the individuals returned to their home or group home upon discharge or if the admission resulted in a disruption of where the child lived and if any issues could be identified that applied statewide and or more narrowly to a specific region. CCCA provided access to all records and medical professionals at the facility. Also, it should be noted by the reader that as of July 15, 2015, CCCA began reporting on a daily basis the admission of anyone identified with a developmental disability. The local children's REACH program is now contacted within one business day by DBHDS central office staff if this daily report does not indicate that the REACH program was involved.

Admissions:

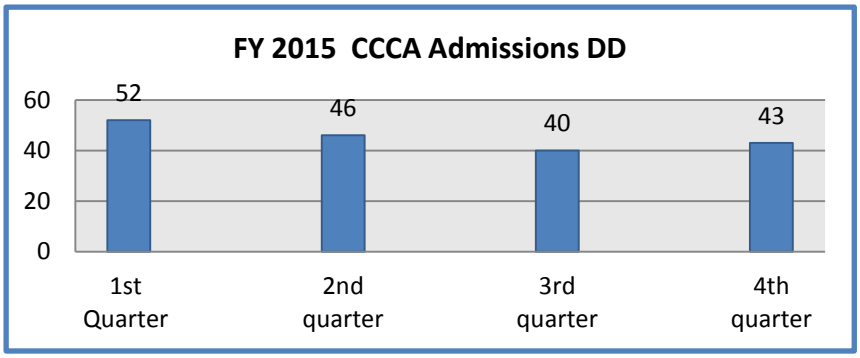
According to Avatar admission data, in FY 15 CCCA reported a total 13,043 bed days of services. Individuals with DD utilized 4,081 bed days, or 31.2% of the total.

Fiscal Year2015 CCCA Bed Utilization

MH Hospital	Total Bed Days Available	# of Bed Days Utilized by Individuals with DD	% Bed Days Utilized by Individuals with DD	# of Admissions of Individuals with DD
CCCA	13,043	3,212 (1st Admission)	18.50%	139
		869 (Subsequent Admissions)	6.67%	42

Thirty-one individuals were admitted more than once during the study period and these account for 40% (73/181) of the total CCCA admissions by individuals with DD, and 31.2% percent (4,081/13,043) of all bed days utilized by individuals with DD.

As shown below, admissions of individuals with developmental disabilities remained relatively consistent by quarter for FY 15.



There were 181 total admissions to CCCA during FY15. 139 unique individuals with DD were admitted during this period. Most individuals were admitted only one time, but 31 individuals were admitted more than once. These 31 individuals accounted for 73 admissions, or 40% (73/181) of all admissions.

Of the 31 children with more than one admission, 20 had two admissions, 8 had three admissions, 2 had four admissions, and 1 had five admissions.

*The data merits additional review to help determine factors which may be driving repeat admissions to guide DBHDS in creating evidence based strategies to enable individuals to be supported within their community.**

*Additionally, this should include exploring length of time between readmissions to learn if this is a factor in readmissions.**

Demographics of Individuals with DD Admitted to MH Hospital

Admission Legal Status of Individuals with DD:

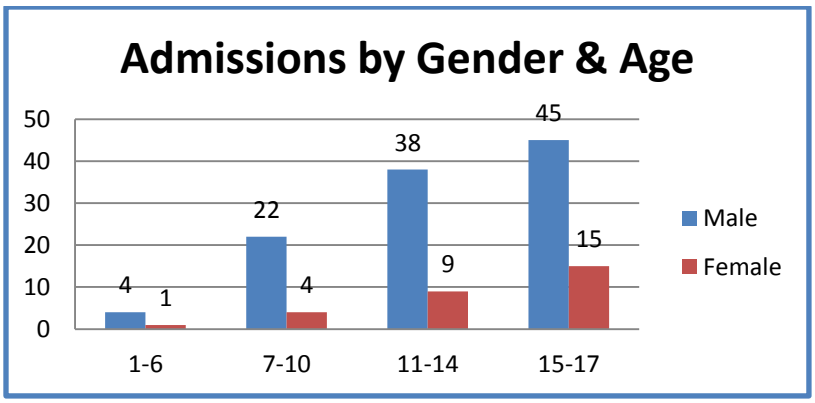
A Temporary Detention Order (TDO) is an order issued by a magistrate when the magistrate finds probable cause to believe that a person meets the commitment criteria for inpatient hospitalization or treatment. The chart review as to TDOs indicated during FY 15 that:

- 72.7 % (101/139) of individuals with DD were admitted on involuntary temporary detention orders (TDO),
- 24.5% were voluntary admissions, and
- 2.9% were other types of admissions (including forensic, transfers, and DOE requested).

*To facilitate development of services, further vetting of this data should occur to determine if there are regional differences or if there are specific issues that can be identified to enable DBHDS to focus resources to reduce or divert potentially unnecessary admissions.**

Gender and Age:

Males accounted for 78% (109/139) of the admissions of individuals with DD to CCCA, whereas females accounted for 21% (29/139) of the total admissions of individuals with DD. Figure 4 presents the age range upon admission.



A plurality (43%; 60/139) of all individuals with DD who were admitted to were ages 15-17.

*The data suggests that reviewing age of admission of the DD population against the non-DD population may provide additional context for this data to help determine if this is an identified family support need versus a trend of onset mental health symptomotology.**

Residential Living Situations Prior to Admission and Post Discharge

Individuals with DD lived in a variety of settings before their admission to an MH Hospital and after discharge. The table below presents the different types of residential settings where individuals with DD lived prior to admission and post discharge. As can be seen in the table below, most individuals with DD lived in family-type homes prior to and post-discharge. There was a significant difference in use of DBHDS-licensed providers pre-admission (11.5%) and post-discharge (29.5%). This may be indicative that an admission resulted in being connected to community support for children who were in need of a higher level of care.

Residential Locations for Individuals with DD Prior to Admission and Post Discharge

RESIDENTIAL LOCATION	PRIOR TO ADMISSION	DISCHARGED TO
FAMILY TYPE HOMES		
Family home; relative home	111 (79.9 %)	83 (59.7%)
Foster Home	10 (7.2%)	4 (2.9%)
DBHDS-licensed Provider (i.e., group home; congregate residential provider)	16 (11.5 %)	41 (29.5%)
Other	2 (1.4%)	5(3.6%)
Out of state placements		6(4.3%)
Total	*139*	*139*

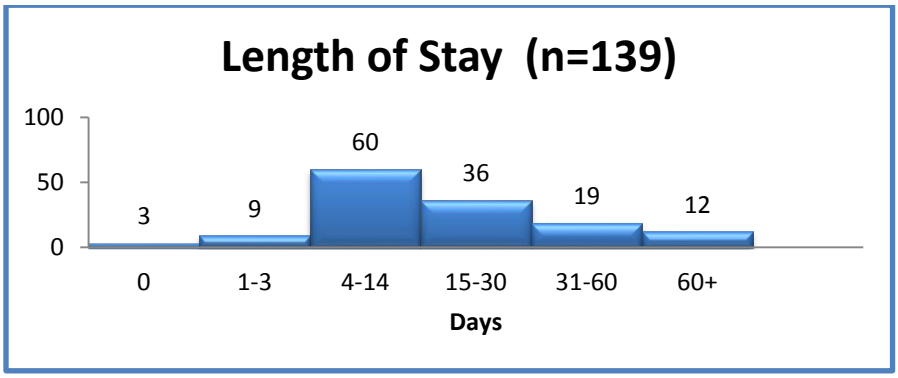
The majority of individuals with DD were discharged to the same residential location or type of residence they were living in before admission:

> 59.7% (83/139) of individuals with DD moved back to the exact same living situation they were residing in prior to their admission to CCCA.

*The data merits additional review to help inform DBHDS on how best to ensure appropriate placement as well as training of the biological or host family and treatment strategies for children who are identified at higher risk of hospitalizations (due to environmental, behavioral, or other factors) which could impact returning to their current residence.**

Length of Stay (LOS)

The total bed days for all children at CCCA was 4,081. The median LOS was 13 days. Children were admitted on average for 23 days for each of the specific admissions reviewed. The range of LOS was 0 days (<24 hours) to 156 days. The following chart depicts LOS for persons (n=139) admitted to CCCA.

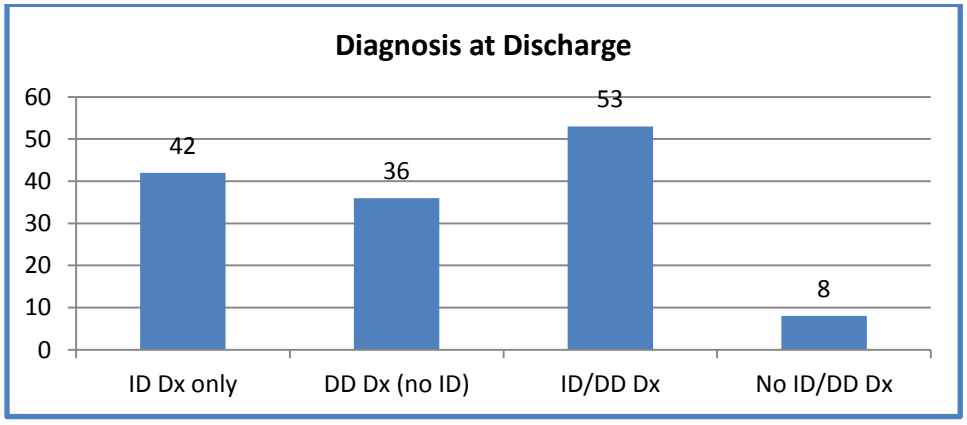


*The data merits comparing length of stay for the DD population against the non-DD population to provide additional context to this data.**

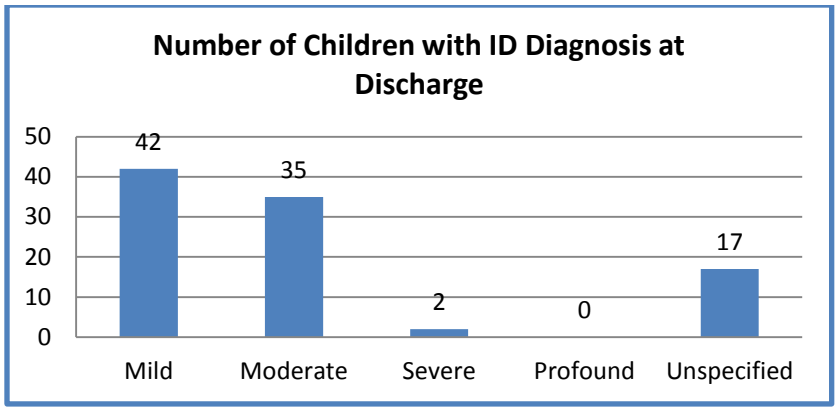
*The review team should also look at LOS related to readmission. This information could be effective in targeting training needs and resource development.**

Diagnosis of Developmental Disabilities Including Intellectual Disabilities

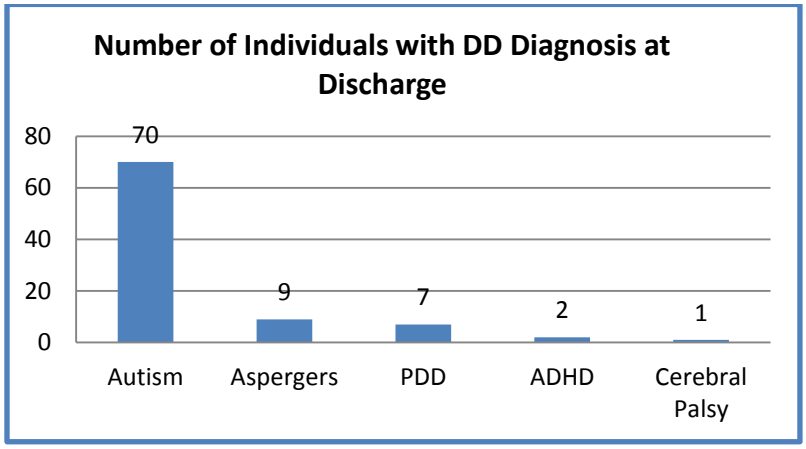
The numbers of individuals discharged from CCCA in FY15 (139) who had a diagnosis of intellectual disability, developmental disability (autism spectrum disorders, cerebral palsy, ADHD), or both are presented below. There was a relatively equal disbursement of diagnoses.



The graph below presents the number of individuals discharged from CCCA with a diagnosis of intellectual disability and their level of functioning. Of individuals discharged from CCC during FY15, 30% (42/139) had a diagnosis of mild ID, 25% (35/139) had moderate ID, 12% (16/139) had a diagnosis of unspecified ID, 1% (2/139) had a diagnosis of severe ID, and none had a diagnosis of profound ID.



As presented below, 89 individuals had a diagnosis of developmental disability other than an intellectual developmental disability at discharge. The most common diagnosis (50%; 70/139) was Autism. It should be noted that some children had multiple DD diagnoses at discharge usually with the spectrum being combined with ADHD.



*The data may merit additional discussion as to how to apply the data in the chart above to determine how resources should be focused upon increasing access to community mental health services and how this may or may not result in better overall outcomes.**

Diagnosis of Mental Health Issues in Current FY15 Review

Out of the 139 individuals with an intellectual or developmental disability who were admitted to a MH Hospital, 93.5% (130/139) were diagnosed with a mental health disorder. Admissions were the result of an acute mental health crisis or chronic mental health disorders and related behaviors. 12% (31/139) of individuals admitted did not have a co-occurring mental health diagnosis; they only had a diagnosis of ID, DD, or a combination. These individuals were admitted due to their challenging behavioral issues associated with their DD diagnoses.

*The data collected may merit additional review to inform if additional training may or may not assist with the diagnoses and the potential benefit of behavioral consultation to address challenging behavioral issues that are often associated with a DD-MI diagnosis.** Training areas identified include:

- Training in functional assessment,
- Development of behavior support plans, and
- Training and monitoring of direct support staff in behavior support plan implementation is needed.

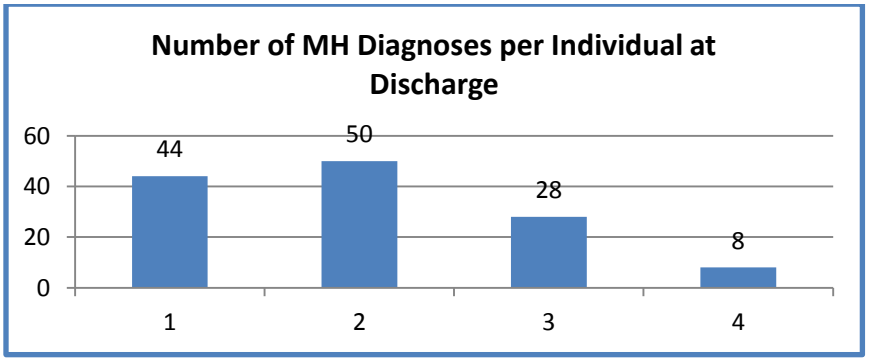
*Recommendation: The review team should assess how a combination of behavior support and psychiatric treatment could be integrated into routine clinical protocols for children with and without developmental disabilities.**

The most common mental health diagnoses at discharge for those individuals with DD fell into seven primary groupings as reflected in the table below. It should be noted that some children had multiple mental health diagnoses.

Most Common MH Diagnoses at Discharge for Individuals with DD

MH Diagnoses at Discharge	**Number of Individuals Discharged (n=139) and Percent of Total**
Mood Disorders	50; 36%
Disruptive Behavior Disorder	39; 28%
Oppositional Defiant Disorder	39; 28%
Adjustment Disorder	27; 19%
Anxiety Disorder	25; 18%
PTSD	23; 16.5%
Intermittent Explosive Disorder	21; 15%

As noted in in the graph below, most individuals with DD were discharged with more than one mental health diagnosis (86). Of these, the largest number of individuals were discharged with two mental health diagnoses, and the second group with three mental health diagnoses drops by almost half. Fewer people were discharged with four mental health diagnoses at discharge (please note totals will not add back to 139).



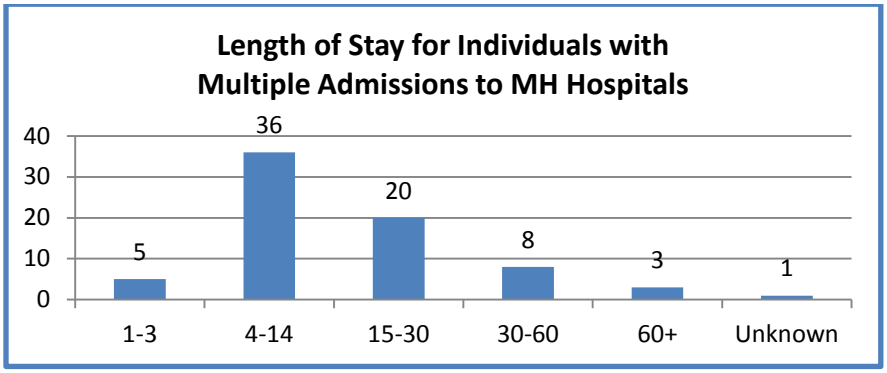
The purpose of this retrospective review was not to question the accuracy or validity of the diagnoses made by the MH Hospitals, but in the chart documentation review, there was no mention of modified

psychiatric criteria or the use of psychopathology tools developed specifically for persons with dual diagnoses. Increased knowledge of clinical tools could facilitate a more accurate psychiatric diagnosis and clinical treatment of individuals with DD to facilitate connecting with the appropriate community based professionals.*

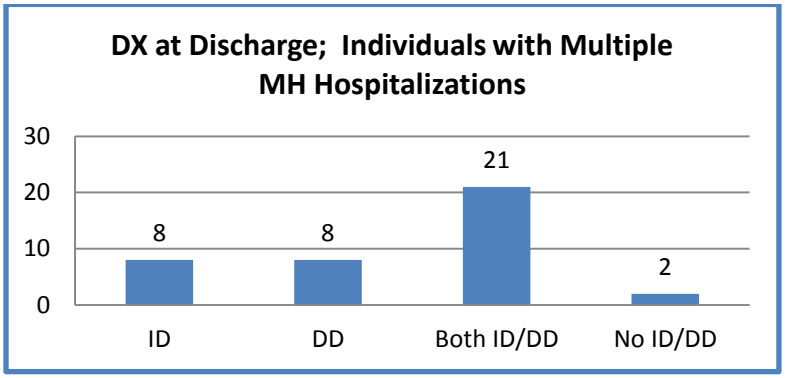
Individuals Who Had Multiple MH Hospital Admission in FY15

While there were 181 admissions during FY15, 139 unique individuals with DD were admitted. Most individuals were admitted once, but 31 individuals were admitted more than once to CCCA. These 31 individuals accounted for 73 admissions, or 40% (73/181) of all admissions. Most repeat admissions were at CCCA; only 1 individual had admissions at a different state hospital (aged out of CCCA). Out of the 4,081 bed days utilized by all individuals with DD, these 31 individuals used 1,308 bed days or 32% of the total bed days utilized by all individuals with DD.

The graph below shows the LOS for individuals who had multiple admissions to MH Hospitals. Most individuals LOS were 4-14 days (36). The LOS decreased across 15-30 days (11), 30-60 days (8), and 60+ (3).



The number of individuals with multiple hospitalizations at CCCA and their diagnoses at discharge of ID, DD, or a combination of an intellectual disability with another developmental disability is presented in the graph below.



The most common diagnoses of those with multiple hospitalizations were mild intellectual disability (13/31) and autism (15/31).

Most Common MH Diagnoses at Discharge for Individuals with DD who had multiple admissions to MH Hospitals

MH Diagnoses at Discharge	Number of Individuals with Multiple Admissions to MH Hospitals (n=31)
Oppositional Defiant Disorder	9
Adjustment Disorder	8
Anxiety Disorder	7
Disruptive Behavior Disorder	6
Mood Disorder	5
Intermittent Explosive Disorder	4

The data above may include duplicate counts per children with multiple diagnoses.

CSB Use of CCCA for all Individuals in FY15

Thirty-four (34) of the 40 CSBs admitted at least one individual with DD to CCCA in FY15. The table below presents the top 6 CSBs which accounted for 33% (60/181) of admissions for individuals with DD.

Top Six CSBs that Admitted Individuals with DD to CCCA in FY15 as compared to population

CSB Provided Case Management to the Individual with DD	Number of Individuals with DD Admitted to CCCA	Population (Children) with I/DD (on wait list or on DD Waivers) in FY15	Percent of Population
BLUE RIDGE	12	676	1.8%
NORFOLK	11	701	1.6%
NORTHWESTERN	11	596	1.8%
PR. WILLIAM CTY	10	735	1.4%
HENRICO COUNTY	9	949	1%
VALLEY	7	382	1.8%
TOTAL	**60**	**4,039**	**1.5%**

The data indicates may merit additional review of current, regional admission patterns to determine if regionally-specific strategies would have merit.

Case coordination and communication among CSB MH case management, CSB ID case management, CSB MH discharge planners, and MH Hospital Social Workers is critical to effective crisis management, support coordination, and discharge planning.

*Training of discharge planners and MH Hospital Social Work staff to assure an understanding of supports and services available to people with developmental disabilities as well as eligibility criteria for these supports should be targeted in the coming year.**

REACH Involvement and Potential Diversion

At the time of these hospitalizations, REACH children services were being developed throughout the state. The reviewer looked at the data available to determine whether or not the hospitalizations could have been diverted if REACH services had been available. This is based on the clinical judgment of the reviewer and the documentation that was available. Since this review was of admissions to CCCA in FY15, DBHDS has initiated children's REACH crisis services and has increased expectations for REACH to be contacted by the CSB pre-screener when their assessment indicates that an individual has DD. REACH is then supposed to go to the location of the prescreening assessment to provide clinical consultation and to determine which REACH services can be provided. If possible, the goal is to divert the person from an inpatient admission at a mental health facility when appropriate community services could be provided in a less restrictive setting.

Part of this retrospective review was to determine if a diversion from a CCCA admission was possible based upon reasons for admission, psychiatric assessments, and other relevant clinical documentation. The table below presents data regarding possible diversions from CCCA. Based on this review, diversion from CCCA was not clinically advised at the time of admission for 89 of the 139 individuals with DD (64%). Admissions possibly could have been diverted if the newly funded services had been available at the time (e.g., REACH, CSB crisis stabilization, mobile crisis, in-home supports, behavioral consultants, etc.).

Table 14: Possible Diversion from MH Hospital Admission in FY15

Hospital Admissions N= 139	# of Individuals with DD in which Hospital Diversion Could Have Occurred	% Hospital Diversion that Could Have Occurred	# of Individuals with DD in which Hospital Diversion not Clinically Advised	% Hospital Diversion not Clinically Advised
CCCA	40	29%	89	64%
TOTAL	40/139	29 %	89/139	64%

There are an additional 10 (7%) cases where the reviewer was unsure, based on available information, whether an admission could have been diverted.

*These individuals will require a further review of their clinical needs to determine the type of services that would most benefit their needs.**

Summary and Recommendations

Again, throughout this document are noted recommendations and questions which when addressed may facilitate the continued development of community services for this population. Specifically, a major conclusion from the review is that a small, but significant number of individuals with a developmental disability will continue to present themselves for crisis services in the public system. There are short term options which may be put into place as well as longer term solutions which can be implemented with the development of some additional treatment models or community based facilities. The recommendations and observations with in the report along with the additional questions and/or observations (reflected in italics and with asterisks) will be reviewed and discussed by the DBHDS internal review committee and

incorporated into the development and refinement of current and pending new services. It should be noted that the intent of services is not to restrict the access of individuals to mental health services as needed but to improve the outcomes and reduce disruptions that may result in living in more restrictive settings.